AMENDMENTS TO THE CLAIMS

Please amend the Claims 41, 81, and 93, as follows:

1 (previously presented): A method for radiological examination of an organ comprising the steps of:

(a) injecting a contrast medium into the organ to be examined;

(b) emitting an energy beam in the direction of the organ;

(c) taking a plurality of images after the energy beam has crossed the organ; wherein a first image is taken before injection of the contrast medium and at least one second image is taken after injection of the contrast medium during a phase of heightened attenuation due to the contrast medium; and

(d) calculating a representative image of the contrast produced in the tissues of the organ from the images.

2-9 (canceled).

10 (previously presented): The method according to claim 1 in which the at least one second images are taken at intervals equally distributed in time.

11-12 (canceled).

13 (previously presented): The method according to claim 1 in which the at least one second images are taken at shorter intervals of time during the phase of heightened attenuation due to the contrast medium than after the phase of heightened attenuation.

14 (previously presented): The method according to claim 10 in which the at least one second images are taken at shorter intervals of time during the phase of heightened attenuation due to the contrast medium than after the phase of heightened attenuation.

15-16 (canceled).

17 (previously presented): The method according claim 1 in which at least one second image is taken at the end of the attenuation phase and a third image is taken a few minutes after the end of the attenuation phase.

18 (previously presented): The method according claim 10 in which a second image is taken at the end of the attenuation phase and a third image is taken a few minutes after the end of the attenuation phase.

19 (previously presented): The method according claim 13 in which at least one second image is taken at the end of the attenuation phase and a third image is taken a few minutes after the end of the attenuation phase.

20 (previously presented): The method according claim 14 in which at least one second image is taken at the end of the attenuation phase and a third image is taken a few minutes after the end of the attenuation phase.

21 (previously presented): The method according to claim 1 in which the first image is subtracted from each of the at least one second images.

22 (previously presented): The method according to claim 10 in which the first image is subtracted from each of the at least one second images.

23 (previously presented): The method according to claim 13 in which the first image is subtracted from each of the at least one second images.

24 (previously presented): The method according to claim 14 in which the first image is subtracted from each of the at least one second images.

25 (original): The method according to claim 21 in which the subtracted images are filtered spatially.

26 (previously presented): The method according to claim 22 in which the subtracted images are filtered spatially.

27 (previously presented): The method according to claim 23 in which the subtracted images are filtered spatially.

28 (previously presented): The method according to claim 24 in which the subtracted images are filtered spatially.

29 (original): The method according to claim 1 in which the images are converted into thickness images.

30 (previously presented): The method according to claim 1 wherein the examination is mammography.

31 (original): The method of claim 1 wherein the emitting X-ray beam has a maximum intensity for a frequency in the same order as a selected absorption line of the contrast medium.

32 (previously presented): The method of claim 1 wherein a gray level of the at least one second image is proportional to a quantity of the contrast medium per unit surface of the image.

33 (previously presented): The method according to claim 1 wherein the number of at least one second images can range between 2 and 10.

34 (previously presented): The method according to claim 1 wherein a gray level of the at least one second image depends on the density of contrast medium in the organ.

35 (previously presented): A radiology apparatus comprising:

means for injection of a contrast medium into an organ to be examined;

means for emitting an energy beam;

means for receiving the energy beam and capable of sending an output of a first image taken before injection of the contrast medium representative of the incident energy

beam and at least one second image taken after injection of the contrast medium during a phase of heightened attenuation due to the contrast medium representative of the incident energy beam; and

means for processing capable of controlling the means for emitting and processing data from the means for receiving in order to calculate a representative image of the contrast produced in the tissues of the organ from the images.

36 (previously presented): The apparatus according to claim 35 wherein the means for processing is capable of controlling the means for injection of a contrast medium after the acquisition of the first image and before the acquisition of other images.

37 (original): The apparatus according to claim 35 wherein the means for processing is capable of generating a representative image of the thickness of the contrast medium.

38 (original): The apparatus according to claim 36 wherein the means for processing is capable of generating a representative image of the thickness of the contrast medium.

39-40 (canceled).

41 (currently amended): A method of radiological examination of an organ comprising the steps of:

(a) emitting an energy beam in the direction of the organ to be examined;

(b) taking a first image of the organ;

(c) injecting a contrast medium into the organ;

(d) taking at least one second image of the organ after the injection of the contrast medium, wherein the second image is taken during or after or at the end of a ~~the~~ phase of heightened attenuation ~~phase~~ due to the contrast medium when the beam has crossed the organ;

(e) subtracting the first image from the second image; and

(f) calculating a curve of attenuation or a representative image of the contrast produced in the organ from the images.

42 (previously presented): The method according to claim 17 in which the first image is subtracted from each of the at least one second images.

43 (previously presented): The method according to claim 18 in which the first image is subtracted from each of the at least one second images.

44 (previously presented): The method according to claim 19 in which the first image is subtracted from each of the second images.

45 (previously presented): The method according to claim 20 in which the first image is subtracted from each of the at least one second images.

46 (previously presented): The apparatus according to claim 35 in which the first image is subtracted from each of the at least one second images.

47 (previously presented): The apparatus according to claim 36 in which the first image is subtracted from each of the at least one second images.

48 (previously presented): The apparatus according to claim 35 in which the at least one second images are taken at intervals equally distributed in time.

49 (previously presented): The apparatus according to claim 35 in which the at least one second images are taken at shorter intervals of time.

50 (previously presented): The apparatus according to claim 36 in which the at least one second images are taken at shorter intervals of time.

51 (previously presented): The apparatus according to claim 35 in which a second image is taken at the end of the attenuation phase and a third image is taken a few minutes after the end of the attenuation phase.

52 (previously presented): The apparatus according to claim 36 in which a second image is taken at the end of the attenuation phase and a third image is taken a few minutes after the end of the attenuation phase.

53 (previously presented): The apparatus according to claim 46 in which the subtracted images are filtered spatially.

54 (previously presented): The apparatus according to claim 47 in which the subtracted images are filtered spatially.

55 (previously presented): The apparatus according to claim 35 wherein a gray level of the at least one second image is proportional to a quantity of the contrast medium per unit surface of the image.

56 (previously presented): The apparatus according to claim 35 wherein the number of second images can range between 2 and 10.

57 (previously presented): The apparatus according to claim 35 wherein a gray level of the at least one second image depends on the density of contrast medium in the organ.

58 (previously presented): The apparatus according to claim 35 in which the second images are taken at shorter intervals of time during the phase of heightened attenuation due to the contrast medium than after the phase of heightened attenuation.

59 (previously presented): The apparatus according to claim 35 wherein the emitting energy beam has a maximum intensity for a frequency in the same order as a selected absorption line of the contrast medium.

60 (previously presented): The method according to claim 41 in which the at least one second images are taken at intervals equally distributed in time.

61 (previously presented): The method according to claim 41 in which the second images are taken at shorter intervals of time during the phase of heightened attenuation due to the contrast medium than after the phase of heightened attenuation.

62 (previously presented): The method according to claim 41 in which a second image is taken at the end of the attenuation phase and a third image is taken a few minutes after the end of the attenuation phase.

63 (previously presented): The method according to claim 41 in which the images are converted into thickness images.

64 (previously presented): The method according to claim 41 in which the first image is subtracted from each of the second images.

65 (previously presented): The method according to claim 41 in which the subtracted images are filtered spatially.

66 (previously presented): The method according to claim 63 in which the subtracted images are filtered spatially.

67 (previously presented): The method of claim 41 wherein a gray level of the at least one second image is proportional to a quantity of the contrast medium per unit surface of the image.

68 (previously presented): The method according to claim 41 wherein the number of second images can range between 2 and 10.

69 (previously presented): The method according to claim 41 wherein a gray level of the at least one second image depends on the density of contrast medium in the organ.

70 (previously presented): An article of manufacture comprising:

a computer useable medium having computer program code means embodied therein for taking radiological images by an apparatus having means for injection of a contrast medium into an object to be examined, means for emitting an energy beam, mean for receiving the energy beam and capable of sending an output of the images of the incident energy beam after the beam has crossed the object and means for processing capable of controlling the means for emitting and processing data from the means for receiving;

the computer readable program code means processing a first image taken before injection of the contrast medium;

the computer readable program code means processing at least one second image taken after the injection of the contrast medium during a heightened attenuation due to the contrast medium; and

the computer readable program code means calculating a representative image produced in the object from the images.

71 (previously presented): The article according to claim 70 wherein the computer readable program code means processing the at least one second images at intervals equally distributed in time.

72 (previously presented): The article according to claim 70 wherein the computer readable program code means processing the at least one second image at shorter intervals of time during the phase of heightened attenuation due to the contrast medium than after the phase of the heightened attenuation.

73 (previously presented): The article according to claim 70 wherein the computer readable program code means processing the at least one second image at the end of the attenuation phase and third image a few minutes after the end of the attenuation phase.

74 (previously presented): The article according to claim 70 wherein the computer readable program code means processing in which the first image is subtracted from the at least one second image.

75 (previously presented): The article according to claim 70 wherein the computer readable program code means processing in which the first image is subtracted from each of the least one second images.

76 (previously presented): The article according to claim 74 wherein the computer readable program code means processing in which the subtracted images are filtered spatially.

77 (previously presented): The article according to claim 75 wherein the computer readable program code means processing in which the subtracted images are filtered spatially.

78 (previously presented): The article according to claim 70 wherein the computer readable program code means processing in which a gray level of the at least one second image is proportional to a quantity of the contrast medium per unit of surface of the image.

79 (previously presented): The article according to claim 70 wherein the computer readable program code means processing in which the number of second images can range between 2 and 10.

80 (previously presented): The article according to claim 70 wherein the article is a support capable of being read by a reading device for the computer readable program code means embodied therein.

81 (currently amended): A program storage device readable by a machine, tangibly embodying a program of instructions executable by a machine to perform method steps for taking a radiological image of an object, the method steps comprising:

a. emitting an energy beam in the direction of the object to be examined;

b. taking a first image of the object;

c. injecting a contrast medium into the object;

d. taking at least one second image of the object after the injection of the contrast medium, wherein the second image is taken during or after or at the end of ~~an~~ a phase of heightened attenuation ~~phase~~ due to the contrast medium ~~of~~ when the beam has crossed the object;

e. subtracting the first image from the second image; and

f. calculating a curve of attenuation or a representative image of the contrast produced in the object from the images.

82 (previously presented): The program storage device according to claim 81 wherein the at least one second images are at intervals equally distributed in time.

83 (previously presented): The program storage device according to claim 81 wherein the at least one second image are at shorter intervals of time during the phase of heightened attenuation due to the contrast medium than after the phase of the heightened attenuation.

84 (previously presented): The program storage device according to claim 81 wherein the at least one second image is taken at the end of the attenuation phase and third image a few minutes after the end of the attenuation phase.

85 (previously presented): The program storage device according to claim 81 wherein the first image is subtracted from the at least one second image.

86 (previously presented): The program storage device according to claim 81 wherein the first image is subtracted from each of the at least one second image.

87 (previously presented): The program storage device according to claim 85 wherein the subtracted images are filtered spatially.

88 (previously presented): The program storage device according to claim 86 wherein the subtracted images are filtered spatially.

89 (previously presented): The program storage device according to claim 81 wherein a gray level of the at least one second image is proportional to a quantity of the contrast medium per unit of surface of the image.

90 (previously presented): The program storage device according to claim 81 wherein the number of second images can range between 2 and 10.

91 (previously presented): The program storage device according to claim 81 wherein the device is a support capable of being read by a program readable computer.

92 (previously presented): A computer program product for use with an image display device, the computer program product comprising:

a. a computer useable medium having computer program code means embodied in the medium for causing a computer to take images of an object injected with a contrast medium, the computer program product having:

b. computer readable program code means for causing the computer to take a first image before injection of the contrast medium;

c. computer readable program code means for causing the computer to take at least one second image after the injection of the contrast medium during a heightened attenuation due to the contrast medium; and

d. computer readable program code means calculating a representative image produced in the object from the images.

93 (currently amended): A computer program product for use with a display device, the computer program product comprising:

a. computer readable program code means for causing emission of an energy beam in the direction of an object to be examined;

b. computer readable program code means for causing the taking of a first image of the object;

c. computer readable program code means for causing injection of a contrast medium into the object;

d. computer readable program code means for causing the taking of at least one second image of the object after the injection of the contrast medium, wherein the second image is taken during or after or at the end of ~~an~~ a phase of heightened attenuation ~~phase~~ due to the contrast medium ~~of~~ when the has beam crossed the object;

e. computer readable program code means for causing the subtraction of the first image from the second image; and

f. computer readable program code means for calculating a curve of attenuation or a representative image of the contrast produced in the object from the images.

94 (previously presented): The method according to claim 1 wherein the images are representative of the thickness of the contrast medium.

95 (previously presented): The method according to claim 29 wherein the images are representative of the thickness of the contrast medium.

96 (previously presented): The method according to claim 41 wherein the images are representative of the thickness of the contrast medium.

97 (previously presented): The method according to claim 64 wherein the images are representative of the thickness of the contrast medium.

98 (previously presented): The article of manufacture according to claim 70 wherein in the computer readable program code means the images is representative of the thickness of the contrast medium.

99 (previously presented): The program storage device according to claim 81 wherein the images are representative of the thickness of the contrast medium.

100 (previously presented): The computer program product according to claim 92 wherein in the computer readable program code means the images is representative of the thickness of the contrast medium.

101 (previously presented): The computer program product according to claim 93 wherein in the computer readable program code means the images is representative of the thickness of the contrast medium.